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JAN 10 2011

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the inventor, at the time the application was filed, had possession of the claimed invention.

Claim 1 and Claim 2 are cited.

The added limitation in Claim 1 "recording values for satisfaction and level of conviction, both of which can be presented to said respondent at the time of said survey" can be found in the Specification in the Description [0018] "The invention also ensures that the resulting responses to both sets of survey questions are given calculated values based upon the respondent's level of conviction. By comparing the results of the emotional and rational responses, a true value of respondent satisfaction can be obtained"; in the Abstract "by structuring the system and method of the electronic questionnaire survey in accordance with a strict set of guidelines, it is possible to measure a respondent's views on any subject matter both emotionally and rationally, together with the respondent's level of conviction"; in the Description [0018] "...the respondent....is assured of an assessment of their own inputs immediately following completion of the questionnaire survey"; in the Description [0144] "The Display Summary block (203) outputs a textual summary as well as a graphical report to the respondent immediately following completion of the questionnaire survey"; in the Description [0145] "An example of a typical graphical output from the preferred embodiment is shown in FIG. 8..."

The added limitation in Claim 2 "ranked within the group according to the importance of the statement to the survey initiator" can be found in the Specification - Description [0040] "For the second task, Statement Block 1 is defined (011) whereby in each of the  $N$  Categories ( $N = 4$  in the above example),  $n$  statements are defined (where  $n = N$ ) ranked and assigned a value depending on their ranking ( $C_N Q_n, C_I Q_I$  where  $N$  and  $n$  both indicate the highest rank)."

**Claims 2-3, 5-10, 13, 15, 19-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

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Following a telephone interview with the examiner and his supervisor on 13<sup>th</sup> December, 2010 it was established that this rejection was as a result of the incorrect format of both dependent and independent claims. The format has now been amended according to the requirements, as communicated.

***Claim Rejections – 35 USC § 102***

**Claims 13, 15, 19-21, 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Olsen (US 2004/0018477 A1).** The reason for the rejection of claims 13, 15, 19-21, 23 is respectfully traversed.

**Background**

Olsen (US 2004/0018477 A1) describes “a computer based training tool and method that emulates human behaviour using a computer-simulated person in a realistic scenario. It provides an interactive experience in detecting deception during interviews and acceptance of statements during interpersonal conversation” (Olsen, Abstract). The patent application clearly describes a tool for students who want to hone their skills at interrogation techniques (Olsen [0011]; [0020]; [0036]), using a computer to simulate the responses and emotional well being of a human subject (Olsen [0038]). The student chooses questions to ask from a list of questions and assesses the response of the simulated human orally (by listening to the simulated human’s response) and visually (by observing physical gestures of the simulated human) (Olsen [0038]). As such Patent Application Olsen (US 2004/0018477 A1) can not be used for surveys in particular satisfaction surveys; nor does it attempt to ask sets of rational and emotional questions in order to quantify the responses to both questions and use the results to measure the respondents level of satisfaction as with the current invention; nor does it attempt in any way to dynamically alter the sets of questioned asked in response to answers given to prior questions as with the current invention; nor does it display results to the

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respondent immediately after completion of the questionnaire, as the respondent isn't in fact a real person but a simulated human, called Mike in the Patent Application (Olsen, [0037]).

There is therefore no correlation between Olsen (US 2004/0018477 A1) and the current invention. There is also no possibility for one of ordinary skill in the art at the time of the invention to anticipate the current invention based on Olsen's application.

RE claim 13:

The previously presented claim used the past perfect tense ("having stored responses") where "stored" is a verb; however the author recognises that this claim could also be read with the word "stored" interpreted as an adjective. As such the claim has been rewritten for clarification purposes.

Olsen describes a system with questions and responses being pre-defined and stored in a computer (Olsen, Abstract; [0053]). A student then has to select one of several pre-defined questions (Olsen, [0037]) to which the computer program responds (Olsen, [0039]). The selected questions and computer generated response are then stored in the computer for future analysis (Olsen, [0113]). In the current invention however, questions are posed to the respondent and the responses are stored.

The current invention takes responses to the first part of the questionnaire, evaluates them and dynamically creates a second set of questions to be answered by the respondent. Olsen, however, describes a tool which allows a student to select questions to ask the computer (Olsen, [0037]), to which the computer responds with pre-programmed answers, which are chosen based on a logical rules-set (Olsen [0018]).

Olsen's invention therefore stores the flow of the programme - consisting of which questions were asked and which responses the computer generated. The current invention, however, asks questions, stores the corresponding results, defines a new set of questions to present and stores the corresponding result.

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There is also no capacity in Olsen's application to display the results to the respondent as with the current invention, nor does it make any sense to, as the respondent is a computer generated human.

As such, there is no correlation between the methodology of Olsen and the methodology of the current invention. There is also no possibility for one of ordinary skill in the art at the time of the invention to anticipate the current invention based on Olsen's application. The Claim Rejection therefore has no basis.

RE claim 15:

There is no capacity in Olsen's application to display the results either graphically and/or as text to the respondent as with the current invention, nor does it make any sense, as the respondent is a computer generated human. This is not to be confused with the fact that Olsen's application is able to provide a critique and numerical score for each training session to the student (Olsen, Abstract), assigning a score which is based on how well the student managed to identify all the clues presented (Olsen, [0103]). But this methodology of giving a score based on the number of correct responses is typical of state-of-the-art question/answer questionnaires. In the current invention, however, which is a questionnaire designed to measure human satisfaction and extract human emotion from the responses, there are no right and wrong answers, meaning that at the time of the invention a score cannot be given to the responses as with a state-of-the-art right/wrong questionnaire.

As such, there is no correlation between the methodology of Olsen and the methodology of the current invention. There is also no possibility for one of ordinary skill in the art at the time of the invention to anticipate the current invention based on Olsen's application. The Claim Rejection therefore has no basis.

Re claims 19-21,23:

[Claim 19] Olsen describes a stand-alone program (the "interview") which may be run on a single computer or distributed on a DVD or the Internet (Olsen, [0115]), however he does not

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describe – nor does it make sense for results to be collated from several sources over a network, to compare them and benchmark the results, as with the current invention. As such, the Claim Rejection has no basis.

[Claim 20] The “emotional component” in Olsen’s application refers purely to which emotional state the computer generated human is intended to show visually and/or audibly (Olsen, [0019] ), nor is a value assigned to the “emotional component” at any time. In the current invention, however, the emotional responses to the first set of questions are actively used by assigning a value and subsequently using this value to both generate a second set of questions and to derive a value for satisfaction. There is therefore no correlation between Olsen’s “emotional component” and the “emotional responses” of the current invention. As such, the Claim Rejection has no basis.

[Claim 21] The “logical component” in Olsen’s application selects the response to be given both visually and audibly by the computer generated human to the student’s selected question (Olsen, [0018]). Also no value is assigned to the “logical component” at any time, as with the current invention. In the current invention, however, the rational responses to the second set of dynamically generated questions are actively used by assigning a value to them and subsequently using this value to derive a value for satisfaction. There is therefore no correlation between Olsen’s “logical component” and the “rational responses” of the current invention. As such, the Claim Rejection has no basis

[Claim 23] Olsen’s application does not consider a survey originator interested in collating results from numerous students, and then summarising the results or benchmarking the results. In fact Olsen’s application is for, and only makes sense as, a purely stand-alone system run on a computer (Olsen, [0115]). The usage of the system is to assess a student’s interview techniques and skills using trait recognition (Olsen, [0115]). As such, the Claim Rejection has no basis.

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[Claims 19-21, 23] For the reasons stated above, the prior art structure of Olsen bears no correlation whatsoever to that claimed in claims 19-21, 23 nor would it be possible for one of ordinary skill in the art at the time of the invention to modify Olsen's application accordingly, meaning there is no basis for the Claim Rejection.

***Claim Rejections – 35 USC § 103***

**Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen (US 2004/0018477 A1).** The reason for the rejection of claim 22 is respectfully traversed.

The examiner takes Official Notice that it was old and well known to combine responses from other respondents. However in view of Official Notice, it would have been obvious to one of ordinary skill in the art, at the time of the invention, that this is not always possible and does not always make sense. For example, in a satisfaction survey, for which the current invention is intended, techniques have to be used in order to make the results more accurate, as there is always an inherent human emotional influence which skews the results and has to be filtered out, typically by making use of a statistical analysis of a number of results. The results of a single survey make no sense taken in isolation and cannot therefore be used in combination with others. This is discussed fully in the Specification of the current invention [0012]-[0016]. As such, at the time of the invention, it would not have been possible to simply take the outputs of a satisfaction survey and combine the results from other respondents as stated in the Official Notice. Only by using the current invention is this problem solved, so that it does indeed now become possible.

Also Olsen does not disclose adding the results of the emotional responses and the rational responses, because there are no emotional or rational (logical) responses to be added – the output from the program is a score and not an emotional or logical response (Olsen, [0103]). Of course, with a state-of-the-art question/answer questionnaire such as that proposed by

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Olsen it is well known to combine such scores from other respondents for comparison and benchmarking purposes.

The system/method described in Olsen does not relate to a satisfaction survey, to the measurement of emotional responses or to the measurement of rational responses and so cannot be used as grounds for rejection of the current claim even in light of the Official Notice.

Claim 22 therefore has no limitations so that Claims 19-21, 23 are also unaffected by this Claim Rejection.

As such, the vast differences between Olsen (US 2004/0018477 A1) and the current invention are such, that the subject matter as a whole would not have been obvious at the time of the invention to a person having ordinary skill in the art.

**Claims 1-3, 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen (US 2004/0018477 A1) in view of Frost (US 5041972 A)..** The reason for the rejection of claims 13, 15, 19-21, 23 is respectfully traversed.

Re claim 1:

The Examiner states that Olsen discloses a system and method to give a true indication of respondent satisfaction to an electronic questionnaire survey which is characterised by asking the respondent or plurality of respondents to give their answers to two sets of questions with both sets of questions being based on similar statements, but posed differently, so that the first set of questions are answered emotionally by the respondent and the second set of questions are answered rationally.

However the system disclosed by Olsen:

- a) has a respondent which is computer generated and is therefore void of human emotion
- b) does not attempt to measure human satisfaction

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- c) is not one that can be used in a survey
- d) does not consist of two sets of similar questions
- e) does not divide the questions into ones that can be answered emotionally and ones that can be answered rationally.

As such, this statement from the Examiner and all subsequent arguments based on it are not valid. As such, the vast differences between Olsen (US 2004/0018477 A1) and the current invention are such that the subject matter as a whole would not have been obvious at the time of the invention to a person having ordinary skill in the art.

In addition, the Claim Rejection also refers to Frost (Col 4, lines 9-20) to discuss ranking. However the ranking referred to "in the discrimination index" (Frost Col 4, line 16) is fixed prior to making the "final quantitative interviews" (Frost Col 4, lines 16-17) and therefore not altered at the time of the survey as required by the current invention. Also the ranking methodology as described in Frost, (col 8, lines 40-68; col9, lines 1-11) are performed at the statistical analysis stage (Frost, col 8 line 34) and not at the time of the survey, as with the current invention. This method of performing statistical analysis on the results obtained from a state-of-the-art survey to improve results is discussed fully in the Specification of the current invention ([0012]).

As such Frost describes a state-of-the-art methodology and not a methodology as described in the current invention. Nor would it have been possible for someone having ordinary skill in the art at the time of the invention to adapt Frost's process accordingly.

Re claims 2-3:

[Claim 2] It is common for state-of-the-art questionnaires to group questions into different categories as with Olsen (fig 3, fig5, [0045]) but there is no limitation or specification as to the number of questions required in each group. However the current invention requires statements (and not questions) to be equally distributed in number amongst the groups and to



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be ranked in a way that enables the responses to the resulting questions to be used for the latter part of the questionnaire.. This process is specific to the current invention. Despite the fact that the Claim Rejection has no basis, the claim has been amended to make this fact clearer.

[Claim 3] Olsen does not discuss two sets of questions nor does he discuss posing questions so that they may be answered rationally (logically) or emotionally. The logical and emotional parts of Olsen's system are used purely to determine what response to give the student and with what emotional output (Olsen, [0018]-[0021]).

As such the Claim Rejection has no basis, nor would it have been obvious at the time of the invention to a person having ordinary skill in the art to adapt Olson accordingly.

Re claims 5-7:

[Claim 5-6] Olsen's system does not have two sets of questions, so a second set cannot be dynamically generated at the time of the questionnaire as with the current invention. Also in Olsen's system the questions (and responses) are pre-programmed into the system and are not altered at any time (Olsen, Abstract). As such the Claim Rejection has no basis, nor would it have been obvious at the time of the invention to a person having ordinary skill in the art to adapt Olson accordingly.

[Claim 7] Olsen describes a questionnaire which the student has to answer at the end of the "interview" which forces the student to make a decision on the honesty of the computer generated human (Mike) (Olsen, [0076]). However the art of this questionnaire is not discussed so it is not possible to say whether the answer given will be emotional or logical or a mixture of both. In contrast the current invention claims a process where a second set of questions is dynamically defined at the time of completion, which can only be answered rationally.

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As such the Claim Rejection has no relevance to the current claim and therefore has no basis, nor would it have been obvious at the time of the invention to a person having ordinary skill in the art to adapt Olson accordingly.

Re claims 8-10:

[Claim 8-9] In Olsen [0065]-[0068] a system is described which controls and updates the emotional state of the computer generated human. Part of this system includes a "random number generator" to assign "weights to each state" (Olsen [0065]). This weighting is therefore used to set an initial state of the system and subsequently used to control the flow of the system (Olsen [0066]). Finally, when a target state is reached, the weight is changed (Olsen [0068]). The initial weights therefore have no bearing on a response from the student (as they are randomly generated) and are continually being recalculated to affect the flow of the program, so that the program can then decide how a response will be delivered to the student, both audibly and visually. The current claims, in contrast, describe methods which calculates a single value called the "level of conviction" (or a "weight" in statistical terms) which is a single value and is a combination of the answers given by the respondent to both the first set and second set of questions. As such the Claim Rejection has no basis, nor would it have been obvious at the time of the invention to a person having ordinary skill in the art to adapt Olson accordingly.

[Claim 10] Olsen [0100]-[0113] summarises how a score is calculated for the student. The score is dependent on (and made up of):

- a) whether the student has correctly identified if the computer generated human (Mike) is truthful or deceptive (Olsen [0104])
- b) whether the student has asked good questions (Olsen [0107])
- c) whether the student has correctly identified each clue (Olsen [0108])
- d) whether the student has asked less than 100 questions (Olsen [0111])

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There is only a single score generated by the system (Olsen [0111]). As such, there is no comparing of responses to generate a final value as with the current claim, as there aren't two set of responses to compare.

As such the Claim Rejection has no relevance to the current claim and therefore has no basis, nor would it have been obvious at the time of the invention to a person having ordinary skill in the art to adapt Olson accordingly.

Summary of claim amendments:

Following a telephone conversation with the Examiner and his supervisor on 13<sup>th</sup> December, 2010, the following formal requirements for the claims were also discussed:

- 1) Each claim should be consistently referred to as a "process"
- 2) Each Independent claim (1, 13, 19) should be in a list format and consist of more than a single step claim
- 3) Each Dependent claim should be simplified and illustrate a single step
- 4) The terms "such as" should be avoided
- 5) Each claim should set limits. As the current application necessitates the use of a computer to perform its function, the term "on a computer" would suffice to set the necessary limits.

(In addition it was stated that references to the claims in the specification should be removed.)

Claim1 has been rewritten to highlight the steps in a list; the limitation of the questionnaire survey being used to measure human satisfaction has been included; the limitation of using a computer has been included; the step of dynamically generating the second set of questions has been added; the results of the questionnaire which can be displayed on completion of the questionnaire have also been included.